

Application No. 09/944,884  
 Amendment dated June 24, 2004  
 Reply to Advisory Action of May 6, 2004

**Remarks / Arguments** begin on page 6 of this paper.

This listing of Claims will replace all prior versions and listings of Claims in the application:

**Listing of Claims:**

Claims 1-24 (Cancelled)

**Claim 25** (Previously Presented) An isolated nucleic acid encoding a polypeptide which stimulates release of proteoglycans from cartilage tissue and having at least 95% nucleic acid sequence identity to:

- (a) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2);
- (b) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;
- (c) the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1);
- (d) the full-length coding sequence of the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1); or
- (e) the full-length coding sequence of the cDNA deposited under ATCC accession number 209526.

**Claim 26** (Previously Presented) The isolated nucleic acid of Claim 25 encoding a polypeptide which stimulates release of proteoglycans from cartilage tissue and having at least 99% nucleic acid sequence identity to:

- (a) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2);
- (b) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;
- (c) the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1);
- (d) the full-length coding sequence of the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1); or

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(e) the full-length coding sequence of the cDNA deposited under ATCC accession number 209526.

Claim 27 (Previously Presented) An isolated nucleic acid comprising:

- (a) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2);
- (b) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;
- (c) the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1);
- (d) the full-length coding sequence of the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1); or
- (e) the full-length coding sequence of the cDNA deposited under ATCC accession number 209526.

Claim 28 (Previously Presented) An isolated nucleic acid comprising a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2).

Claim 29 (Previously Presented) An isolated nucleic acid comprising a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide.

Claims 30-31 (Cancelled)

Claim 32 (Previously Presented) An isolated nucleic acid comprising the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1).

Claim 33 (Previously Presented) An isolated nucleic acid comprising the full-length coding sequence of the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1).

Claim 34 (Previously Presented) An isolated nucleic acid comprising the full-length coding sequence of the cDNA deposited under ATCC accession number 209526.

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Claim 35 (Currently Amended) An isolated nucleic acid that hybridizes under high stringency conditions to:

- (a) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2);
- (b) a nucleic acid sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;
- (c) the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1);
- (d) the full-length coding sequence of the nucleic acid sequence shown in Figure 1 (SEQ ID NO:1); or
- (e) the full-length coding sequence of the cDNA deposited under ATCC accession number 209526

wherein said isolated nucleic acid encodes a polypeptide which stimulates release of proteoglycans from cartilage tissue and wherein said high stringency conditions are selected from the group consisting of: (i) 0.015 M sodium chloride/0.0015 M sodium citrate/0.1% sodium dodecyl sulfate at 50 °C; (ii) 50% (v/v) formamide with 0.1% bovine serum albumin/0.1% Ficoll/0.1% polyvinylpyrrolidone/50mM sodium phosphate buffer at pH 6/5 with 750 mM sodium chloride, 75 mM sodium citrate at 42°C; and (iii) 50% formamide, 5 x SSC (0.75 M sodium chloride, 0.075 M sodium citrate), 50 mM sodium phosphate (pH 6.8), 0.1% sodium pyrophosphate, 5 x Denhardt's solution, sonicated salmon sperm DNA (50 µg/ml), 0.1% sodium dodecyl sulphate, and 10% dextran sulfate at 42°C, with washes at 42°C in 0.2 x SSC (0.75 M sodium chloride, 0.075 M sodium citrate) and 50% formamide at 55°C, followed by a high-stringency wash consisting of 0.1 x SSC (0.75 M sodium chloride, 0.075 N sodium citrate) containing EDTA at 55°C.

Claims 36-37 (Cancelled)

Claim 38 (Previously Presented) An isolated vector comprising the nucleic acid of Claim 25.

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Claim 39 (Previously Presented) The isolated vector of Claim 38, wherein said nucleic acid is operably linked to control sequences recognized by a host cell transformed with the vector.

Claim 40 (Previously Presented) An isolated host cell comprising the vector of Claim 38.

Claim 41 (Previously Presented) The isolated host cell of Claim 40, wherein said cell is a CHO cell, an *E. coli* or a yeast cell.

Claims 42-43 (Cancelled)